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CALIFORNIA CAREGIVERS: PRELIMINARY LABOR MARKET ANALYSIS

Caregiver Training Initiative

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California Employment Development Department

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CALIFORNIA CAREGIVERS:
PRELIMINARY LABOR MARKET ANALYSIS

Executive Summary

In response to a growing worker shortage in the health care industry, Governor Gray Davis and the California legislature funded the Caregiver Training Initiative (CTI), as part of the Governor's Aging with Dignity Initiative. The goals of the CTI are to ensure that (1) California's communities have well-trained caregivers necessary for all levels of care for the elderly population, (2) communities have caregivers necessary for continuity of long-term care, and (3) caregivers have opportunities for entry-level employment, and for career advancement.

One of the initiative's tasks is to conduct a caregiver labor market analysis. This report presents preliminary findings from that analysis. The report is divided into three sections. Part I provides an overview of previous findings about the health care workforce, with an emphasis on the workforce in California. Part II is a description of findings from current analyses on California's labor market conducted at UCLA. This analysis is ongoing. At this time some important data sets are not yet available, and some of the logistics of information-sharing have not been completely resolved. Part III is an outline of future research to be included in subsequent iterations of our labor market analysis.

Following the definitions set in the Employment Development Department's (EDD) "Quest for Caregivers" report, we examine three caregiver occupations: Home Health Aides, Nurse Aides, and Personal and Home Care Aides. In addition, we focus our analysis on five health care industries: Nursing and Personal Care Facilities; Hospitals; Home Health Care Services; Individual and Family Social Services; and Residential Care.

Using data from the Occupational Employment Survey (OES), the California Cooperative Occupational Information System (CCOIS), the Base Wage File and the Business Establishment List (BEL), we focus on three aspects of the caregiver occupations:

1. The wages caregivers receive;
2. The job benefits available to caregivers; and
3. The degree of job stability in caregiver industries.

Wages for Caregivers

Analysis of average wages for the three caregiver occupations suggests some room for wage progression within the occupations, as well as a significant amount of wage spread across employers. The entry level wage for all three occupations is about the same ($7.00/hr). Home Health Aides experience the greatest wage progression from entry to experienced and the greatest wage spread across employers. The size of the

spread suggests that many factors (or labor supply and demand characteristics, such as regional location and language proficiency) may produce compensating wage differentials within the same occupation.

Job Benefits for Caregivers

Preliminary analysis of job benefits indicates that benefits for caregivers are predominately available for full-time employees but not part-time employees. For example, over 70% of full-time Home Health Aides, but less than 20% of part-time Home Health Aides, are offered medical insurance. The disparity between full and part-time caregivers is even more profound because a majority of caregivers are part-time employees. Compared to the other caregiver occupations, Nurse Aides are more likely to receive benefits—possibly because Nurse Aides are more likely to work in large, established firms (particularly hospitals). These findings suggest that the availability of job benefits may differ by firm and industry characteristics.

Job Stability for Caregivers

Analysis of job stability by health care industries suggests a great deal of turnover in the labor market, as well as significant differences across industries. In addition, the degree of job turnover differs by the income level of the employees (with lower income workers experiencing less job stability). For example, more than half of low income workers left their base firm by one year and over 80% left by three years. The majority of these workers are not exiting the workforce, but becoming employed in a different industry.

Future Research

This preliminary labor market analysis provides the groundwork for our analysis of the caregiver labor market. As more data become available, we will be able to expand our analysis and paint a much clearer picture of the labor market dynamics faced by caregivers and employers. Some of the additional research questions we plan to address are listed below.

- How do labor supply and demand characteristics affect wages?
- How do labor demand characteristics affect the provision of job benefits?
- Where do workers go when they leave their current employer and industry?
- Do workers who leave their current employer earn more money over time than those who stay with the same employer?
- To what extent do “occupational ladders” exist for caregivers?

CALIFORNIA CAREGIVERS:
PRELIMINARY LABOR MARKET ANALYSIS

Introduction

Today's newspapers, magazines, and journal articles devote much attention to the problems of inadequate numbers of workers in the health professions, particularly among the lower ranks of paraprofessionals. To illustrate, an entire recent issue of American Society on Aging's journal, Generations (Spring 2001), was entitled "Who will care for older people? Workforce issues in a changing society." The bottom line is that society is changing in ways that exacerbate the shortages of health care industry workers. These paraprofessionals receive some of the lowest wages, and as such, are at the bottom of the service industry hierarchy, but their work is crucial to the sustenance of several million Americans. It is estimated that health care workers providing long-term care, including certified nursing assistants, home health aides, and unskilled workers, supply between 75 and 90 percent of all paid direct care to consumers (Wilner & Wyatt, 1998).

California has responded to this worker shortage by funding the Caregiver Training Initiative (CTI), part of the Governor's Aging with Dignity Initiative. The goals of the CTI are to ensure that (1) California's communities have well-trained caregivers necessary for all levels of care for the elderly population, (2) communities have caregivers necessary for continuity of long-term care, and (3) caregivers have opportunities for entry-level employment, and for career advancement.

One of the initiative's tasks is to conduct a caregiver labor market analysis. This report presents preliminary findings from that analysis. The workers who are the focus of this report include home health aides, personal and home care aides (also called home aides, home attendants, providers, etc.), and nurse's aides (also called orderlies or hospital attendants), who work in institutional settings like nursing homes and hospitals.

This report is divided into three sections. Part I provides an overview of previous findings about the health care workforce, with an emphasis on the workforce in California. Part II is a description of findings from current analyses on California's labor market conducted at UCLA. This analysis is ongoing. At this time some important data sets are not yet available, and some of the logistics of information-sharing have not been

completely resolved. Part III is an outline of future research to be included in subsequent iterations of our labor market analysis.

If possible, future reports will include information on Certified Nurse Assistants (CNAs), Licensed Vocational Nurses (LVNs) and Registered Nurses, all of whom are more apt to work in institutional, rather than home, settings. More specifically, the next report will include much more about CNAs, since incoming data on this group will enable us to determine how many are moving up the career ladder and how many are moving to other occupations. Another group not described in the current report is the almost 200,000 workers who provide home care through the In-Home Supportive Services (IHSS) program. When data on this group are analyzed, the information will greatly enhance our understanding of work patterns and movement, particularly among the entry-level home and health care workers.

PART I: Current Knowledge of the Caregiver Labor Market

This section highlights the findings from previous research on the health care industry and the caregiver workforce. The national labor market is discussed and then specific attention is given to California.

Labor Market Trends

Because the proportion of elderly people is increasing, there is a demand for more workers who can assist these people with their daily needs. About one in five of these have difficulty in mobility or self-care and about 4.3% were residing in nursing facilities (American Association of Retired Persons, 2000). About 5.4 million non-elderly adults and 400,000 children also need long-term care. It is estimated that by 2050 the number of people reaching ages when they may need long-term care will more than double, and this is taking into account declining disability rates (Alecxih, 2001). In 1998, over 34 million people nationally were over 65.

Besides the increase in the numbers of long-term care consumers, there are other factors contributing to a greatly expanded need for direct-care services. For example, currently there is a large movement toward home- and community-based care, and away

from facility-based care. These non-institutionalized settings require proportionately more direct-care staff (Dawson & Surpin, 2001).

Thus, policy makers are well-advised to focus on the issues of who will be available, when the time comes, to attend to the frailer members of this burgeoning group, as well as to the younger people with disabilities who depend on caregiver help. This is not a small issue, as indicated by 1998 long-term care expenditures totaling over $117 billion (Dawson & Surpin, 2001).

National Work Force Trends

The U.S. health workforce includes health professionals such as physicians and nurses, and paraprofessionals such as nurse aides, home health aides, and technicians. Nationally, it is estimated that about 10.6 million people fall into these two categories. Of these, about 8.5 million work in health service settings such as hospitals, nursing homes, doctors' offices, and laboratories (Bureau of Health Professions, 2000). The remainder work in other work settings.

With about 1.4 million nurse aides, orderlies, and attendants working in 1998, the projected need in ten years is for a 23.8% increase. More striking is the projected 58.1% increase in need for home health and personal care aides, from 746,000 to 1,179,000 workers (Bureau of Labor Statistics, 1999). This trend reflects developments like cost-containment, early discharge from hospitals and nursing homes, home-based treatment, and improved medical technologies.

Overall, paraprofessional workers provide about 80 percent of nursing home direct care, and over 90 percent of formal home care (Atchley, 1996). Besides these formal workers, there is an informal "gray-market" workforce of caregivers hired and paid "under the table" by consumers. Thus, their numbers are not quantifiable despite their significant size.

California: Demand for Caregivers

In terms of overall need, California is more vulnerable because while it is one of the fastest growing states in the nation, its elderly population is expected to grow more than twice as fast as the total population (U.S. Bureau of the Census, 2000). More

specifically, between 1990 and 2020, the projections are that the elderly age group will have an overall increase of 112 percent; the oldest age group, over 85, is projected to increase even faster, by 143 percent.

Other factors have a large impact on the health care workers in California (Ruzek, Bloor, Anderson, Ngo, & UCSF Center for the Health Professions, 1999). These include:

- Managed care system consolidation shifting workers out of hospitals;
- Workplace changes requiring more flexibility and knowledge;
- Ethnic diversity;
- Licensing/certification agencies with non-standardized criteria;
- Increasing levels of consumer choice, competition and accountability;
- Technological advancement requiring new training pathways ; and
- Uninsured and welfare populations larger in California.

In summary, California is one state where educators are having problems preparing future workers with adequate skills, and where care delivery organizations are struggling to control costs and improve quality at the same time. At the core of this fluid environment, workers are required to be more flexible and more tolerant of uncertainty while coping with low wages and difficult working conditions.

California Caregivers

Statistics on California caregivers confirm that California will face special challenges in meeting future needs. Among all states, California ranks 47th in the number of nurse aides, orderlies and attendants, and 48th in the number of home health aides per 100,000 people (Bureau of Health Professions, 2000). Despite the low ratios, health outcomes are not nearly as bad because California has a relatively healthy population, with some exceptions. Regarding long term care, nursing and personal care facility employment in California declined by 2% between 1988 and 1998, while the national average increased by 23% (based on the over-65 population) (Bureau of Health Professions, 2000).

The most comprehensive study of California's caregiving workforce is the Employment Development Department's (EDD) "The Quest for Caregivers: Helping Seniors Age with Dignity" (2001). The table below includes a summary of that report. It

is included here because the intent of UCLA's report is to build on and expand this earlier EDD report and its findings.

Quest for Caregivers: What we know about California
(Source: California Employment Development Department, 2001)

The "Quest for Caregivers" report develops a comparative analysis between entry-level caregiver occupations and competing occupations from the point of view of job seekers and the employment and training staff assisting them. This report analyzes the alternatives that a potential caregiver faces when choosing a job, in order to identify and better understand the issues related with caregiver recruitment, training and retention.

It focuses on the caregiver occupations of Nursing Aides, Home Health Aides and Personal and Home Care Aides. In order to compare caregiving with competing occupations, the authors selected nineteen occupations based on comparable expected California job growth, training requirements, and similar opportunities to provide services to others.

Skills, Knowledge and Abilities Comparison

Competing occupations share eight of caregiving occupation's ten most important skills. While skill level is moderate, caregiver occupations require slightly higher levels in some skills than competing occupations.

Caregivers and competing occupations share six of the ten most important areas of knowledge, all of which are general application areas. The remaining four caregiver occupation-specific knowledge areas (biology, chemistry, medicine and dentistry, and therapy and counseling), are mostly acquired in classrooms or on-the-job training.

Caregivers and competing occupations share six of the ten most important abilities (manual dexterity, oral comprehension, oral expression, speech clarity, static strength, and written expression). The required ability levels are similar, but caregiver occupations require more static strength ability.

WAGES

Wages for caregiver occupations vary depending on geographic location, health care setting and experience level. In California, the average hourly wage for Nurse Aides in 1999 was $8.78, for Home Health Aides $9.73, and for Personal & Home Care Aides $8.23. These entry-level earnings for caregiver occupations fall under the federal poverty levels.

In comparison with large growth occupations requiring similar lengths of training, entry caregivers earn less, with wages in the 35-45th percentile of the group. The opportunity to earn more with experience is not as good for caregiver occupations as for most of the competing occupations. Nurse Aides and Personal and Home Care Aides can increase hourly salaries, with experience, by $2.61 and $2.68, respectively. Home Health Aides can expect to earn an average of $4.85 more per hour.

BENEFITS AND HOURS

There are big differences in pay level and benefits offered to caregivers by hospitals and private skilled nursing facilities. Government-sponsored and large privately run hospitals are most likely to offer benefits. Long-term care facilities and home health agencies very often don't offer medical benefits. Even when medical plans are available, caregivers frequently can't afford the premiums.

Surveys suggest that an average of 65% of the competing occupations offer medical insurance, compared to 44% of Personal and Home Care Aides, 54% of Home Health Aides and 77% of Nurse Aides and Orderlies. About 57% of the competing occupations offer sick leave, compared to 40% of Personal and Home Care Aides, 46% of Home Health Aides, and 69% of Nurse Aides and Orderlies (these figures may be inflated due to biases from response rates). A higher percentage of employers for 14 of the 19 competing occupations offer health insurance benefits than employers for Personal and Home Care Aides, and Home Health Aides.

In general, individual Home Health Aides employed through California's publicly funded In-Home Supportive Services program earn minimum wages without benefits of any kind.

Regarding work hours, most of the competing occupations offer full-time and part-time jobs that can accommodate employee preference and business needs. Most caregiver occupations and some competing occupations offer work shifts Monday to Friday and weekends and holidays. There is little information about flextime regarding caregiver and competing occupations.

PHYSICAL REQUIREMENTS

There are several differences related to physical requirements between caregiver and competing occupations, but in general, it seems to be more important for Nursing Aides, Orderlies and Attendants, than for the rest of the caregiver occupations.

INTERESTS

Often, if an individual's interests were satisfied by caregiver occupations, those interests would also be satisfied by the competing occupations. Caregiver occupations are described in Holland Codes (Holland work environment and Personality Types), as Social, Realistic and Enterprising occupations. Competing occupations as a group are described as Social, Conventional and Realistic.

INDUSTRIAL INJURY AND WORKPLACE VIOLENCE

Nationally, injury and illness rates were consistently higher in Health Services Industries than All Private Sector Industries for 1992 through 1998. However, health services industry injury and illness rates have decreased over 24% during the same period. In California, annual injury and illness rates in Nursing and Personal Care Industry from 1996 to 1999 were almost double the All Private Sector Industry rate.

There is little information about non-fatal assaults in nursing home industry. Nursing home assaults comprised 27% of the workplace assaults in 1992. In 45% of the cases, injury

was caused by a health care patient.

STRESSORS

A comparison was made of eight job characteristics based on three of the six stressors defined by the National Institute for Occupational Safety and Health. In all of them the level of potentially stressful job characteristics for caregiver occupations was higher than for the competing occupations.

Indicators of stress include absenteeism and illness, higher turnover and performance problems. The turnover for caregiver occupations has been reported as 42%, 67.8% or over 100% by different studies. There is no information about the reasons for the turnover.

Nationally, Nurse Aides and Orderlies have the third highest number of occupational injuries or illness requiring days away from work compared with other occupations. Health Aides have a much lower injury rate.

CAREER LADDERS FOR CAREGIVER

Most current career ladders efforts for caregivers are directed toward nursing. Traditionally, nursing programs accept students who can attend full-time, so many are excluded. Alternative career ladder opportunities can be in non-patient jobs, like billing and record keeping, reception, etc. However, the availability of these positions is not very high.

Recommendations for Recruitment and Retention

The authors of the report suggest steps to recruit more workers and retain them in the caregiver occupations:

- Exit interviews – to develop data on patterns and reasons for turnover;
- Best practices – of employers who have lower turnover and injury rates;
- Marketing – to recruit workers based on the value of relationship that would attract those who want to server others;
- Improve assessment – to ensure a better person-job match;
- Tutoring programs – in remedial skills to increase pass rate for licensing exam;
- Identify core competencies – for career paths within health care occupations;
- Financial incentives – to bolster recruitment and retention (retention bonus, paid leave, employee ownership, etc.)
- Workplace reengineering – to make the occupations more appealing.

Conclusions

In summary, what do we know from existing studies about the job outlook for healthcare workers in California? And what are the issues that still should be addressed? How much will we be able to predict about the next ten or twenty years? The shortage of

health care workers is a recurring theme, heard from many sources, but to what extent is this shortage real?

Nationally, we know that the projected increase, especially for the lower-end jobs such as home health aides is very high. In California, there are more sources of variation. California differs from the rest of the country in the sense that there is more ethnic diversity, more consumer choice in terms of home care, a larger welfare and uninsured population, and a faster-growing elderly population. We also know that the turnover rates among workers are very high, and that in terms of wages, benefits, opportunities for advancement and risk of injury, caregiver occupations fare less well than competing occupations. There is also a lower growth rate among the segments of the population who represent workforce caregivers. Finally, the economic boom experienced in the late-1990s appears to have ended.

Taken together, these findings are all consistent with factors related to a labor shortage. However, the findings are not complete since they pertain to the supply-side characteristics of caregiver occupations. Currently we do not know enough about the demand side to understand the true degree of this shortage.

Factors affecting demand are varied and generally tenuous. These include changing trends in health care administration (most reflecting a need for cost-reduction), and fluctuations in the economy, and more specifically, in employment levels. The bottom line is that in order to understand current needs, we have to consider demand as well as supply; this is difficult but not impossible, and we already know a lot about the supply issue. In order to understand future needs, we have to depend on trends in both the supply and the demand side; this is much more challenging, and more than ever, we are aware of the tenuous nature of the economy, our institutions, and the evolving roles of government.

PART II: Findings

The second part of this report outlines the data and methodology used in this preliminary analysis and presents the findings. Given what we know about the California caregiver workforce, our intent now is to expand this current knowledge. Our preliminary analysis, therefore, focuses on three aspects of the caregiver occupations:

4. The wages caregivers receive;
5. The job benefits available to caregivers; and
6. The degree of job stability in caregiver industries.

Following the definitions set in EDD's "Quest for Caregivers" report, we examine three caregiver occupations: Home Health Aides, Nurse Aides, and Personal and Home Care Aides. In addition, we focus our analysis on five health care industries: Nursing and Personal Care Facilities; Hospitals; Home Health Care Services; Individual and Family Social Services; and Residential Care. With the data currently available, we are not able to examine interconnection between occupations and industries. If additional data are available in the future, we would like to better understand how the above occupations fall into the health care industries—as well as the degree to which CNAs, LVNs, IHSS, and other caregiver workers are concentrated in certain occupations and industries.

Data and Methodology

(1) Wages for Caregivers.

We utilize two California EDD data sources to look at the magnitude of caregiver wages. The first is the Occupational Employment Survey (OES), which compiles wage information for specific occupations from employers. At the time of this report we only had access to industry-level data for 1999, and not the firm level data.[1] The second data source is the California Cooperative Occupational Information System (CCOIS), which also compiles wage information for specific occupations from employers. While the

[1] The industries included in this analysis are: Personnel Supply Services; Nursing and Personal Care Facilities; Hospitals; Home Health Care Services; Individual and Family Social Services; and Residential Care.

CCOIS represents a sample of occupations in select California counties, it does provide us with firm-level data for 1997, 1998, and 1999.[2]

The OES provides an overall picture of the average entry-level wage, average current wage, and average wage for experienced workers in the caregiver occupations in 1999. The CCOIS allows for a more detailed examination of the wage spread. We pool the three years of employer-level CCOIS data to look at the "across-employer" spread around the average entry-level wage, average entry-level wage for workers with experience, and the average wage for an employee with three years or more of experience. All reported wages are adjusted to year 2000 dollars. In addition, we weight the analysis by the number of employees in each industry/firm so the reported numbers reflect the average wage received by employees and not the average across industries/firms.

(2) Job Benefits for Caregivers

To assess the extent of job benefits in caregiver occupations, we pooled three years of employer-level CCOIS data (1997, 1998, and 1999).[3] The CCOIS provides information on whether employers offer specific types of benefits to full-time and/or part-time employees in specific occupations.

From the pooled CCOIS data we calculate the percentage of employers offering benefits to full-time and part-time employees in the three caregiver occupations. To estimate the number of employees in each occupation offered benefits, we weight the analysis for full-time employees by the number of full-time employees at each firm, and the analysis for part-time employees by the number of part-time employees at each firm.

(3) Job Stability for Caregivers

To measure job stability among workers in the health care industries, we followed a cohort of employees from first quarter (Q1) 1998 through fourth quarter (Q4) 2000 using

[2] The CCOIS data are collected by sampling firms in selected California counties. Each year, the occupations and firms surveyed change. As a result, the data are not necessarily representative of the state as a whole, and comparisons across years should be made with caution. This makes it very difficult to examine temporal trends in wages, benefits, and hours of work using the CCOIS data.

[3] Pooling the three years reduces the generalization bias created by the non-representative nature of the CCOIS survey.

EDD's Base Wage and Business Establishment List (BEL) files. Two different selections were made to create the cohort:[4]

- All individuals identified in the Base Wage as employed in one of the health care industries in 1998Q1 were selected as the base cohort;
- We then eliminated workers from each industry if they had more than one employer in that industry.[5]
- The resulting 69,112 observations are unique by industry and worker, so the cohort contains multiple observations for some individuals, but no individual represents more than one observation in any specific industry.

We then used the quarterly Base Wage files to track the cohort over three years (1998Q1 to 2000Q4) to measure three types of job stability:

- Employee retention rates – did the worker stay with the same employer as in 1998Q1?
- Industry stability – did the worker stay in the same industry as in 1998Q1?
- Employment stability – did the worker remain in the workforce?

Wages for Caregivers

Analysis of average wages for the three caregiver occupations suggests some room for wage progression within the occupations as well as a significant amount of wage spread across employers. The wage progression and spread differs across the occupations as well.

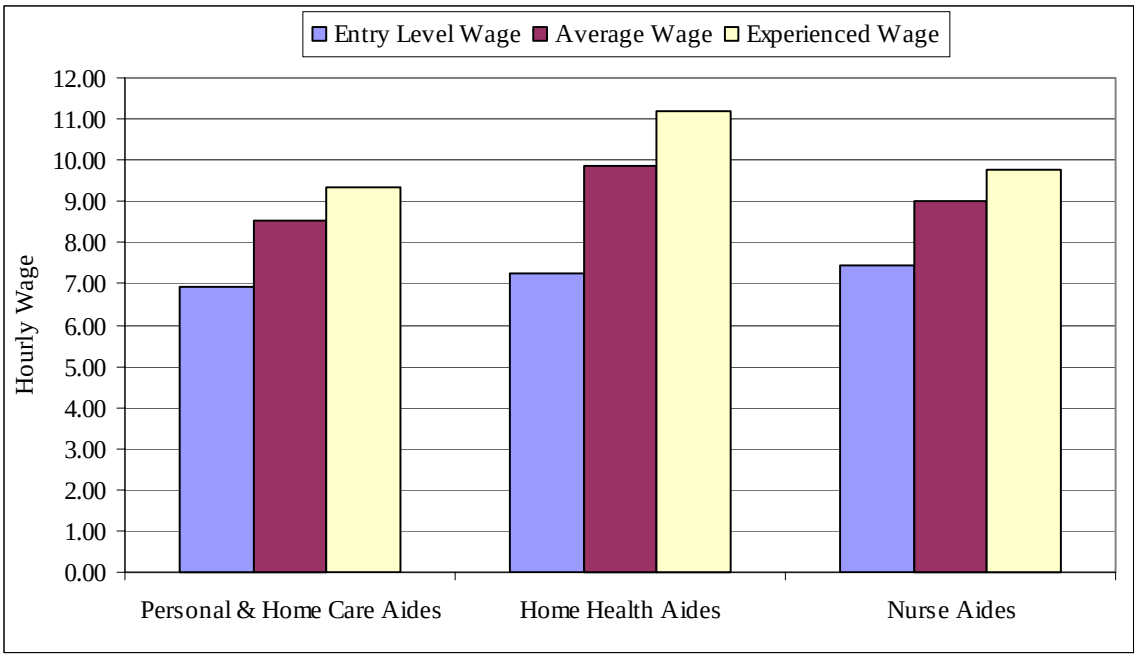
Figure 1 displays the average hourly wages for entry level, average, and experienced caregivers in the identified health care industries. The entry level wage for all three occupations is about the same, although Nurse Aides receive a slightly higher

[4] Throughout the analysis we use three-digit Standard Industrial Classification (SIC) codes to define industries. The health care industries included in our base cohort are: Nursing and Personal Care Facilities (SIC 805); Hospitals (SIC 806); Home Health Care Services (SIC 808); Individual and Family Social Services (SIC 832); and Residential Care (SIC 836).

[5] Eliminating workers with multiple employers in the same industry allows for a clearer estimate of job stability over time. Doing so, however, may exclude individuals with part-time work and secondary employment, which are typically less stable forms of employment. As a result, the results presented in this report may be biased towards those with more stable forms of employment. In future reports, we plan to

hourly wage of $7.45. All three occupations have modest increases in the hourly wage from entry to experienced. Home Health Aides experience the greatest wage progression from their entry level wage to the average and experienced level wage.

Figure 1: Wage Progression by Caregiver Occupations



Notes: Hourly wages represent the average across the Health Care industries and are weighted by the number of employees in each industry. Wages are adjusted to 2000 dollars.
Source: 1999 Occupational Employment Survey.

While the average wages earned by caregivers can increase beyond the entry level amount, they also fluctuate across firms. Figure 2 shows the average wages reported in the CCOIS and graphically displays the wage spread for the 25th to the 75th percentile range with vertical bars. The pattern of wage progression from entry level to experienced is similar to that found in the OES data, although the numbers are not directly comparable. Home Health Aides receive the highest average hourly wages at all three levels of progression, while Personal and Home Care Aides receive the lowest.

Similarly, the wage spread across firms is greatest for the Home Health Aides and least for the Personal and Home Care Aides. This suggests that Personal and Home Care Aides have less opportunity to seek higher wages within their occupation relative to the

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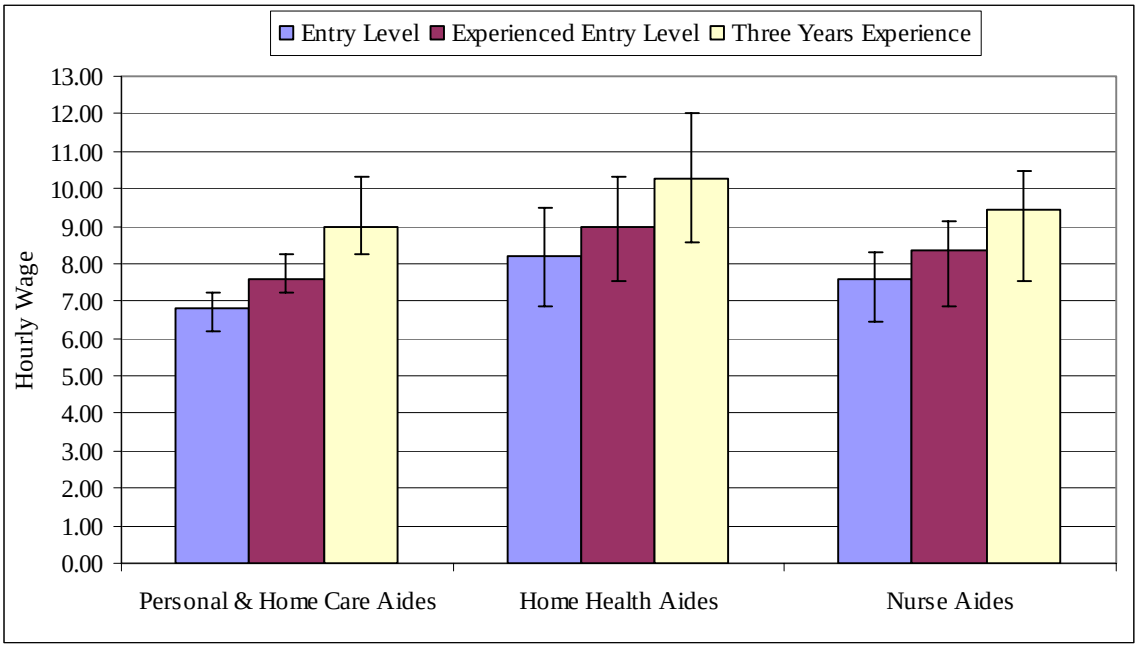
select our cohort based on the "primary" job/industry of employment—as defined by the job with the most earnings in that quarter.

other caregiver occupations. For example, an individual looking for an entry level job as a Nurse Aide is likely to receive a wage between about $6.50 and $8.25, while a similar person looking for an entry level job as a Personal or Home Care Aide is likely to earn between $6.25 and $7.25.

Figure 2: Wage Spread by Caregiver Occupations



Notes: Hourly wages represent the average across firms in the Health Care industries and are weighted by the number of employees in each firm. The vertical bars indicate the 25th to 75th percentile range. Wages are adjusted to 2000 dollars.
Source: 1997, 1998, and 1999 California Cooperative Occupational Information System.

The size of the spread and the resulting degree of overlap between entry level, experienced entry level, and three years experience wages also suggests that many factors (or labor supply and demand characteristics, such as regional location and language proficiency) may produce compensating wage differentials within the same occupation. In the future, we plan to examine the labor supply and demand characteristics that are likely to produce compensating wage differentials, as well as compare the wage spread of caregivers to that of competing occupations.

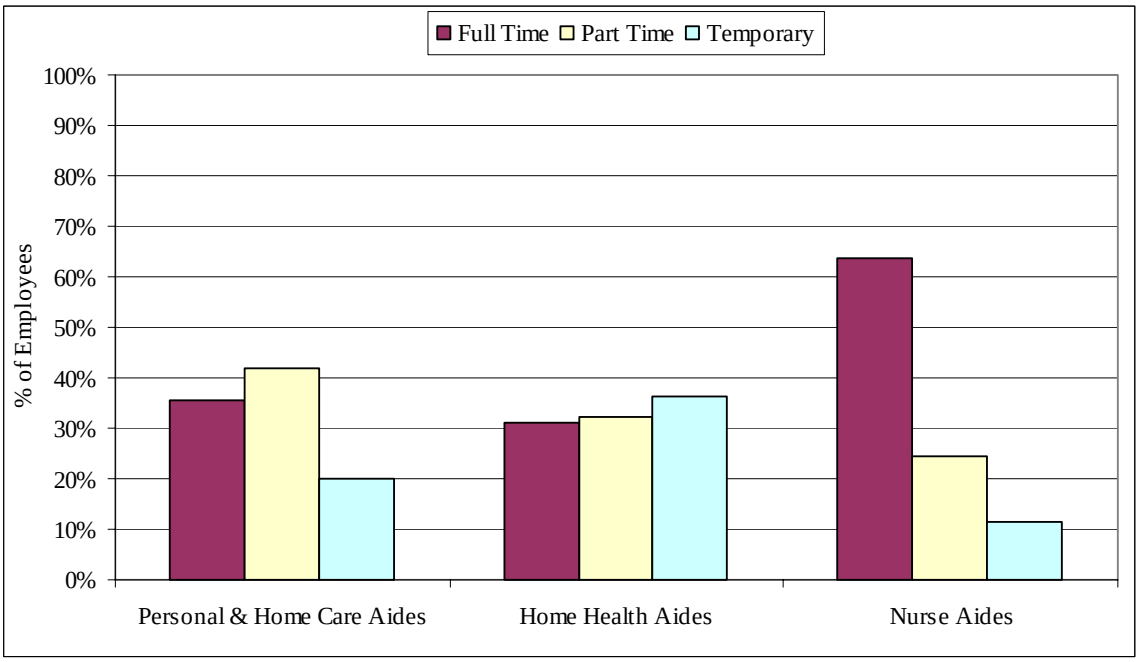
The lack of firm-level data limited the analysis of wages. In future iterations of the labor market report we would like to examine how average wages differ across industries and by firm characteristics. However, the extent of this work hinges on the

ability to access and link firm-level data (specifically linking the OES data to the BEL files).

Job Benefits for Caregivers

Analysis of job benefits available to caregivers suggests that most full-time employees, but only a small percentage of part-time employees, are offered benefits.[6] Figure 3 shows the percent of full-time, part-time, and temporary employees in the three caregiver occupations. This disparity is even more profound because over 60% of the Home Health Aides and Personal and Home Care Aides are part-time or temporary employees, and over 30% of Nurse Aides are part-time or temporary employees. In addition, the availability of job benefits differs across occupations, with Nurse Aides being more likely to receive benefits than other caregivers.

Figure 3: Workforce Composition by Employment Type and Occupation



Note: Percentages may not total to 100% because seasonal and "other" employees are excluded.
Source: 1997, 1998, and 1999 California Cooperative Occupational Information System.

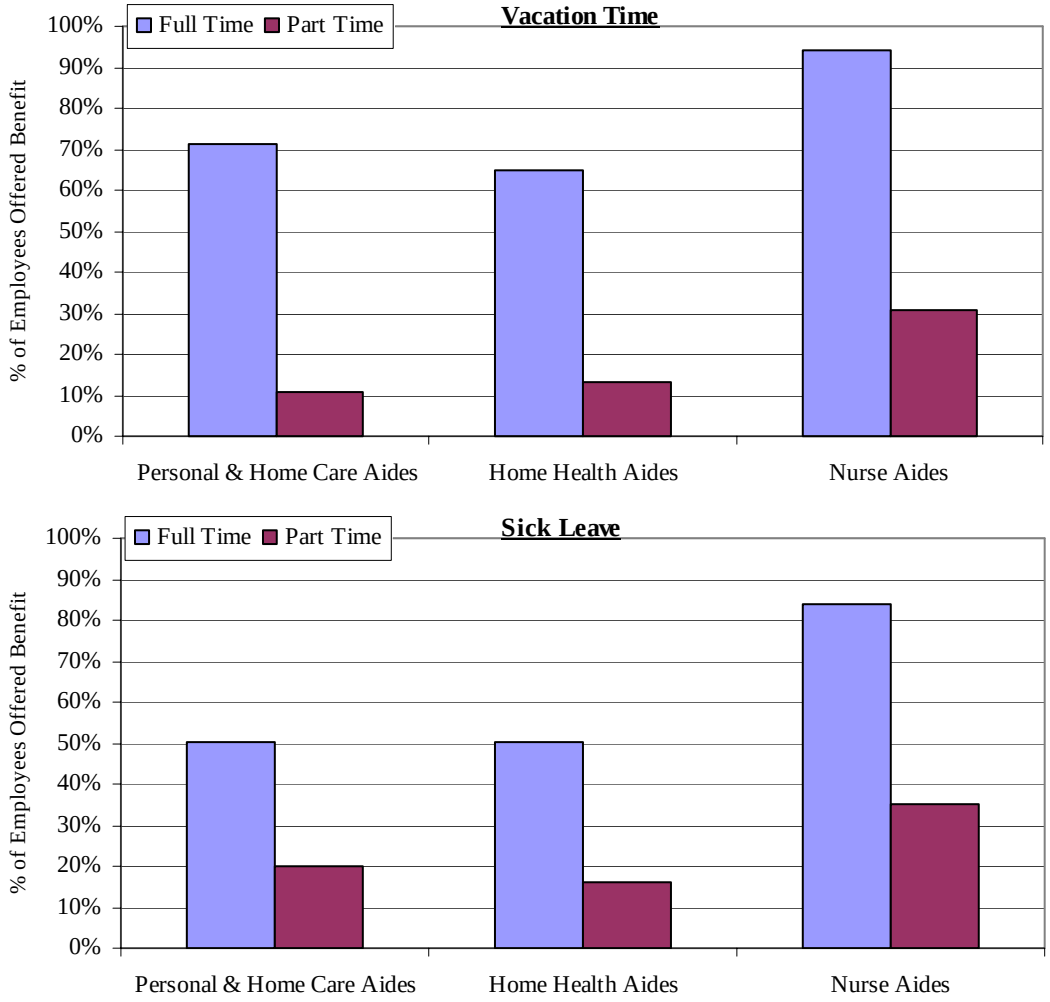
[6] The CCOIS data only allow us to examine benefits *offered* to employees, and not how many employees actually use the benefits (take-up rates). Also, the data do not allow us to identify which firms offer benefits to the worker's family.

Figures 4 and 5 report the percent of full-time and part-time employees offered specific types of job benefits. Over 50% of full-time employees are offered vacation and sick leave benefits, but less than 40% of part-time employees are offered these benefits. Vacation benefits are slightly more prevalent than sick leave benefits for both full and part-time employees. Similarly, over half of full-time employees are offered medical and dental insurance, but less than 25% of part-time employees are offered these benefits. Retirement benefits are slightly less prevalent than the other benefits examined, but the disparity between full and part-time employees still exists.

Nurse Aides are more likely to receive job benefits than other caregivers. Vacation time, sick leave, medical insurance, and dental insurance are offered to over 80% of full-time Nurse Aides, while the percent of full-time Personal and Home Care Aides offered these benefits ranges between 40% and 70%. The trend across occupations is somewhat different for retirement benefits however. The percent of employees offered retirement benefits is almost identical for Nurse Aides and Personal and Home Care Aides, and it is lowest for Home Health Aides.

Our preliminary analysis of job benefits indicates that job benefits for caregivers are predominately available for full-time employees, and not part-time employees. In addition, Nurse Aides are more likely than the other caregivers to receive benefits. One possible explanation for this is that Nurse Aides are more likely to work in large, established firms (particularly hospitals), which are more likely to offer benefits. In the future, we plan to examine how the provision of job benefits differs by firm characteristics and industry. We also want to compare the availability of job benefits for caregivers to competing occupations. As with the future analysis of wages, however, the extent of this future work hinges on the ability to access and link various data sources.

Figure 4: Vacation and Sick Leave Benefits for Caregivers



Note: Percentages for full-time and part-time employees are weighted by the number of full-time and part-time employees, respectively, in each firm.
Source: 1997, 1998, and 1999 California Cooperative Occupational Information System.

Figure 5: Medical, Dental and Retirement Benefits for Caregivers

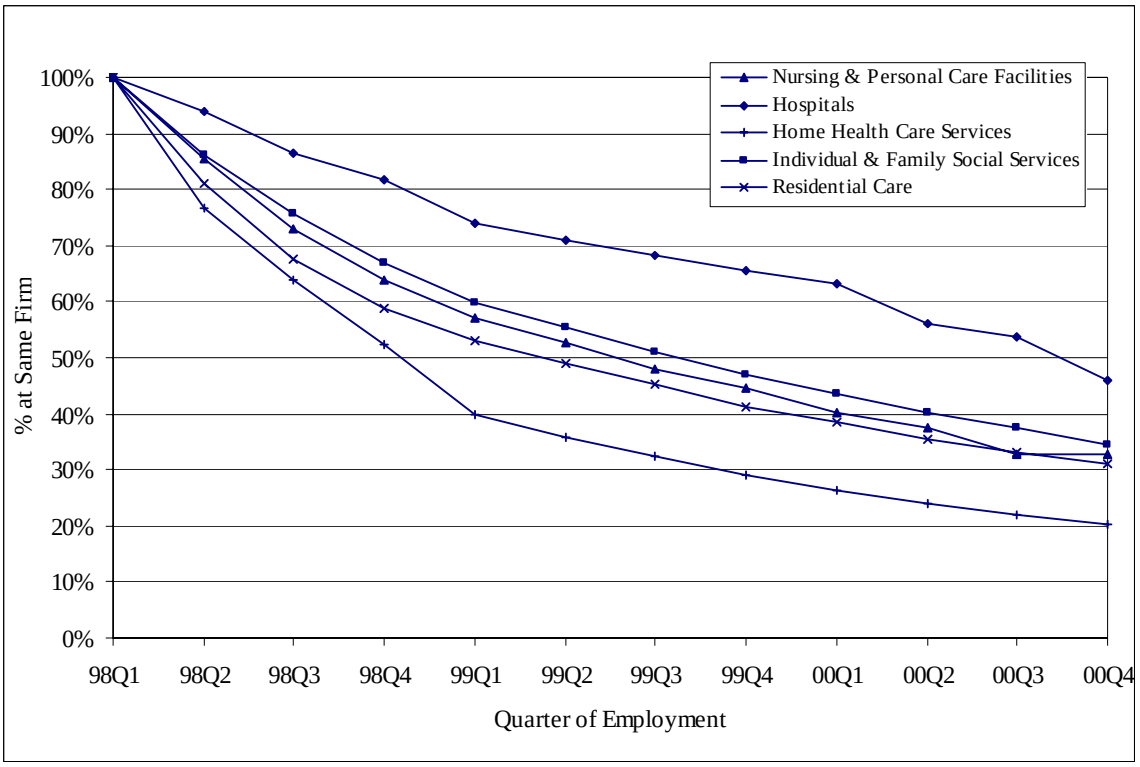
Note: Percentages for full-time and part-time employees are weighted by the number of full-time and part-time employees, respectively, in each firm.
Source: 1997, 1998, and 1999 California Cooperative Occupational Information System.

Job Stability for Caregivers

Analysis of job stability by health care industries suggests that there is a great deal of turnover in the labor market and there are significant differences across industries. In addition, the degree of job turnover differs by the income level of the employees.

Figure 6 tracks employee retention rates (or inversely job turnover) for a cohort of employees in the health care industries. All the health care industries experienced low retention rates during the three years examined. The greatest rates of turnover occurred during the first year, when about 20% to 50% of the cohort left their firm. As time progressed there was a general decline in the turnover rate. Workers in the Home Health Care Services industry had the lowest levels of retention rates, while workers in the Hospital industry had relatively higher levels of retention rates.

Figure 6: Employee Retention Rates by Health Care Industry

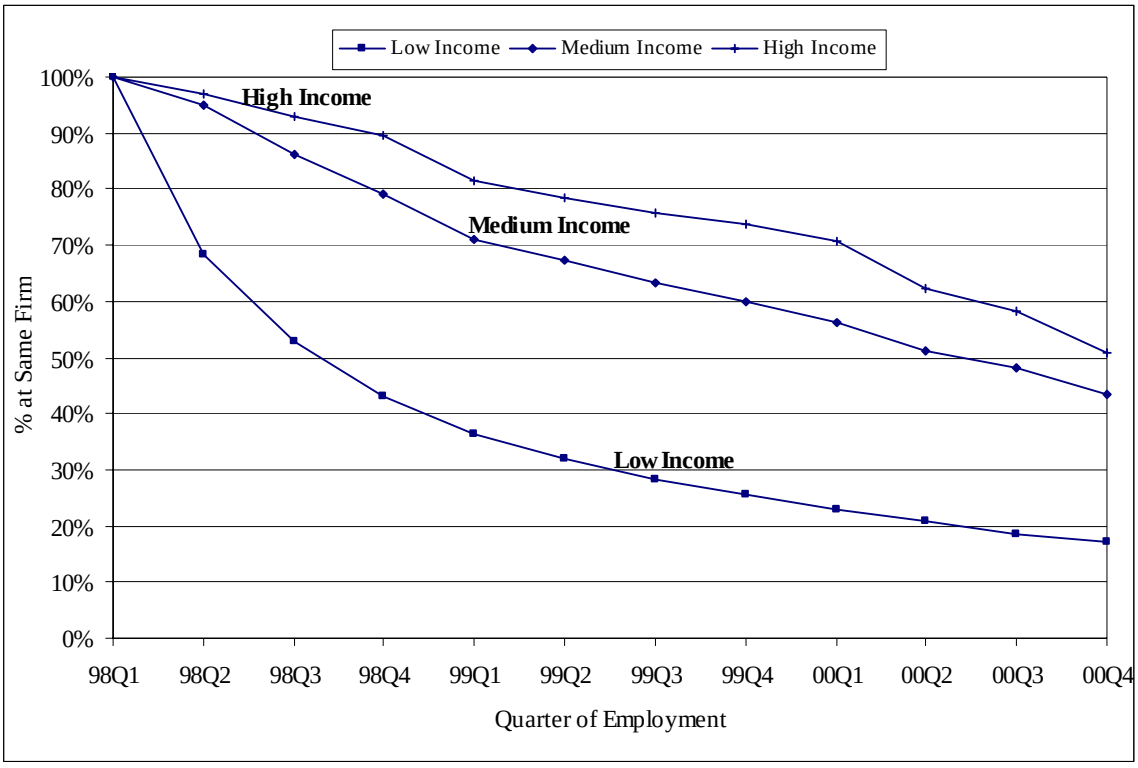


Source: Quarterly Base Wage and BEL files.

Unfortunately, caregivers cannot be directly identified in the Base Wage data, so the above calculations of retention rates include all individuals in those health care industries. However, one can get a better idea of job turnover for caregivers by

examining low income workers in the health care industries. Job turnover is much greater for low income workers relative to employees with more earnings (see Figure 7). More than half of the low income workers (quarterly earnings in 1998Q1 between $0 and $3,000) left their base firm within one year and over 80% left by three years. By comparison, only about 20% and 10% of medium and high income workers, respectively, left within one year.

Figure 7: Employee Retention Rates by Income Level

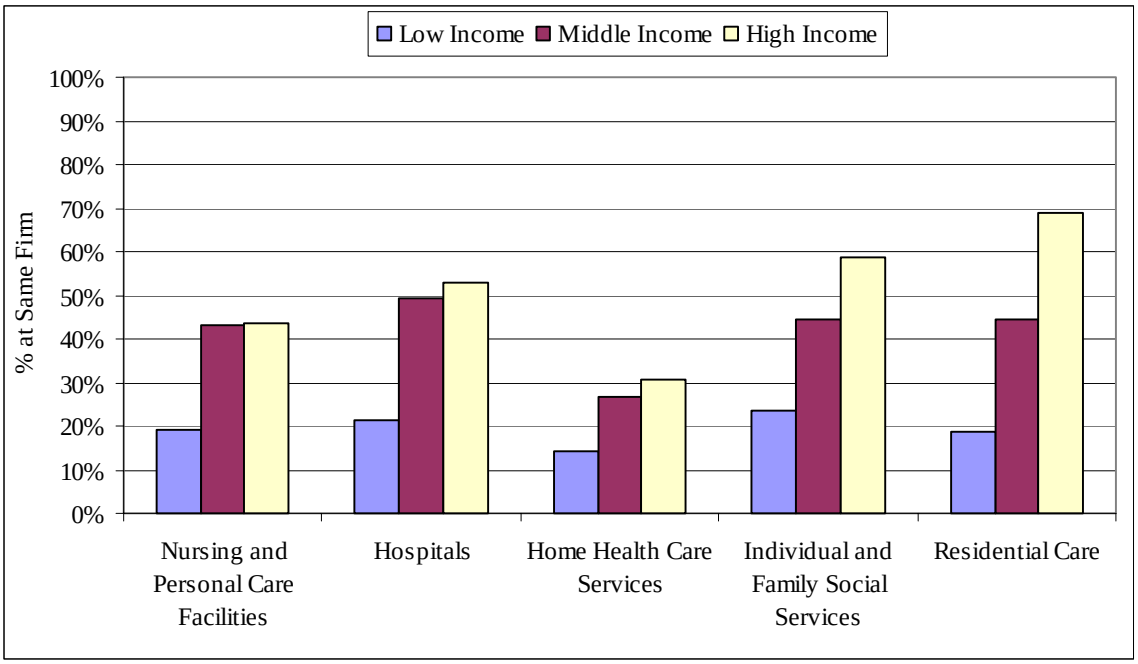


Notes: Low Income = $0 - $3,000 in 98Q1; Medium Income = $3,000 - $15,000 in 98Q1; High Income = $15,000+ in 98Q1.
Source: Quarterly Base Wage and BEL files.

Low income workers in some health care industries have greater retention rates than others (see Figure 8). After three years, over 20% of low income workers in the Hospital and Individual and Family Social Services industries still remained with the same firm, while just fewer than 15% of low income workers in the Home Health Care Services industry were still with the same firm. However, this industry pattern is true for medium and high income employees as well. This suggests that certain industry

characteristics are associated with greater turnover, independent of the income level of the workforce.

Figure 8: Employee Retention Rates after Three Years by Industry and Income



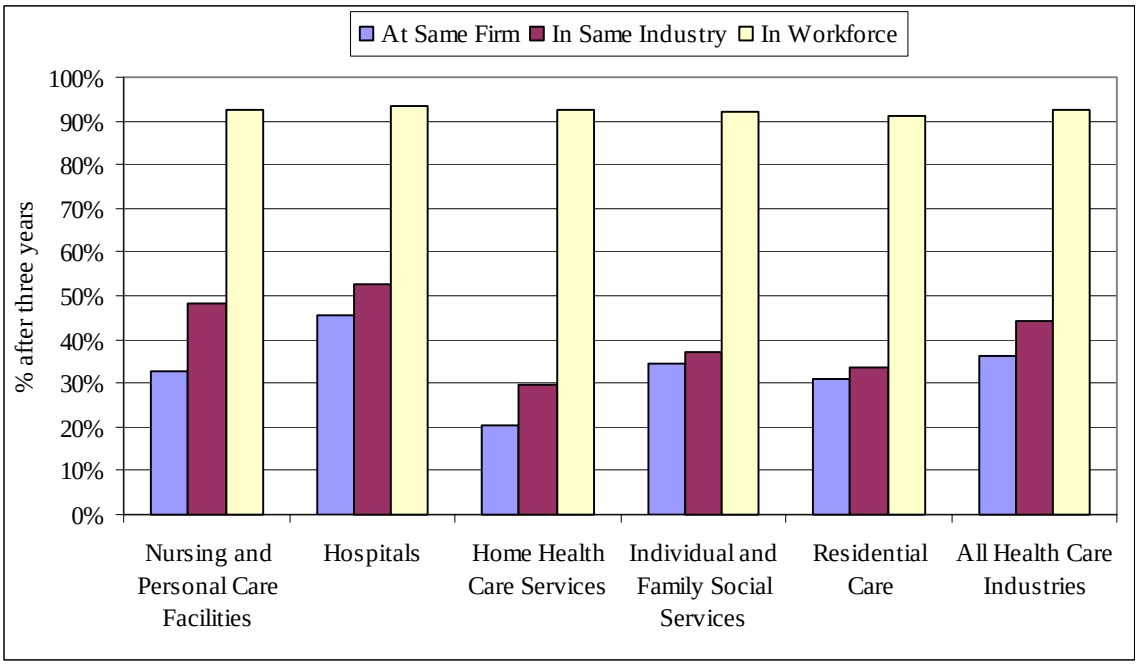
Notes: Low Income = $0 - $3,000 in 98Q1; Medium Income = $3,000 - $15,000 in 98Q1; High Income = $15,000+ in 98Q1.
Source: Quarterly Base Wage and BEL files.

One possible explanation for the low levels of employee retention rates is that employees are exiting the workforce. This, however, does not appear to be the case. Figure 9 shows the percent of employees at the same firm (employee retention rate), in the same industry (industry stability), and in the workforce (workforce stability) after three years. By examining the differences between these three types of job stability, one can get a better idea of where employees go when they leave an employer.

Over 90% of the employees remain in the workforce after three years. The difference between the percent at the same firm and the percent in the same industry represents workers who changed employers but remained in the same industry. The difference between the percent of workers in the same industry and the percent in the workforce represents those who switched employers and became employed in a different industry. Most employees who change jobs within three years gain employment in a

different industry. This is especially true for workers that start out in the Residential Care and Individual and Family Social Services industries.

Figure 9: Job Stability after Three Years by Industry and Type of Stability



Source: Quarterly Base Wage and BEL files.

Our preliminary analysis indicates that there is poor job stability among workers in the health care industries, and job turnover is particularly high for low income workers. However, the majority of these workers are not exiting the workforce, but becoming employed in a different industry. Future iterations of this analysis will examine in more detail where these workers go when they leave their current employer and whether they are better off after they leave (i.e., increase their earnings). We will also compare the job stability for this cohort of employees to that among workers in other industries and those with multiple jobs. We are particularly interested in the Personnel Supply Services and Private Households industries because early examinations of our base cohort suggest a large percentage have jobs in these industries.

PART III: Future Research

This preliminary labor market analysis provides the groundwork for our analysis of the caregiver labor market. As more data become available, we will be able to expand our analysis and paint a much clearer picture of the labor market dynamics faced by caregivers and employers. Part III outlines the additional analysis to be included in an interim report expected approximately six months from this one, assuming sufficient data are available.

Additional Research Questions

To expand on the wage analysis, we plan to address questions such as:

- How does the wage spread for caregivers compare to that of competing occupations?
- How do labor supply (employee) characteristics affect wages?
- How do labor demand (employer) characteristics affect wages?

To expand on the job benefits analysis, we plan to address questions such as:

- How do the job benefits for caregivers compare to those for competing occupations?
- How do labor demand (employer) characteristics affect the provision of benefits?

To expand on the job stability analysis, we plan to address questions such as:

- How does job stability in the health care industries compare to that in other industries?
- How does job stability compare for individuals with multiple jobs?
- Where do workers go when they leave their current employer? Their current industry?
- Do workers who leave their current employer earn more money over time than those who stay with the same employer?

In addition to the above three components of the caregiver labor market, we wish to expand on the current understanding about the caregiver labor shortage. In particular, we will examine the magnitude of the shortage across occupations and regions, as well as

over time and through business cycles. We will also address the extent to which "occupational ladders" for caregivers exist, and which forms they take. Other important issues regarding the caregiver labor market have been raised, such as exogenous factors affecting the labor market. While these issues are not specified in our proposed research agenda, we are exploring funding options to provide the resources to examine these issues.

We also propose to expand our labor market analysis to include IHSS workers. One of California's fastest growing care-related programs is the IHSS program for low-income people with disabilities. Over 194,000 Californians receive these services monthly, up from 150,000 only seven years earlier (information available at http://www.dss.cahwnet.gov/getser/ihss.html). In just two years, the statewide IHSS caseload has increased about 9% (California Department of Social Services, 2000).

We are particularly interested in IHSS workers, since this group could well be a proxy for that part of the workforce known as the "gray market" where people are paid under the table. In California, most of the "gray market" workers are not captured in the Base Wage files. We expect to gain access to IHSS hours and payment data so that we can more effectively track a group of workers about whom little is known.

Data Needs

The preliminary labor market analysis was limited by time and available data. To complete and expand on the above analysis we need to receive the following data.

Data Set	Agency	Description
CNA	Department of Health Services (DHS)	Provides information on applicants for, and recipients of certified nursing licenses, which allows for the tracking of CNAs and the occupational progression of other caregivers. Received data for active CNAs but still need data for inactive ones.
IHSS	DHS	Provides hours and payment data on IHSS non-agency workers, who are private contractors and do not appear in the Base Wage files.
OES – Firm Level	EDD	Compiles wage information for specific occupations from employers; firm-level data are necessary to examine the wage spread across firms and the impact of firm characteristics on caregiver wages.
California Job Openings Browse System (CalJOBS)	EDD	Provides an understanding of what types of firms use CalJOBS as a recruitment tool, and how this varies over time; also provides a measure of the relationship between job openings and resumes for specific occupations.

In addition to receiving these data sets, it is important to up-date the data sets we currently have access to, such as the CCOIS, Base Wage and BEL files, the Workforce Investment Act/Job Training Partnership Act (WIA/JTPA), Welfare-to-Work (WtW), and Medi-Cal Eligibility Data System (MEDS) data files. However, the full potential of these data can only be tapped if we have a mechanisms to link the appropriate data sets to one-another. For example, the firm characteristics of employers in the OES data can only be discovered if the OES data are linked to the BEL data, and the characteristics of low income workers in health care industries can only be discovered if the Base Wage data are linked to the WIA/JTPA, WtW, and MEDS data.

The above are necessary, but not inclusive of the data required to complete a full labor market analysis. Along with the above data, we will continue to explore ways to

incorporate other data sets (such as the Office of Statewide Health Planning and Development facility financial data) into our analysis and look for additional resources to conduct a more comprehensive labor market analysis.

If data sources are in place, we anticipate an interim labor market analysis six months from now that expands on the findings in this report and incorporates new data that provides a clearer understanding of the labor market dynamics for caregivers.

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